



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO22981

Purchase Order Date 2/12/2014

PO Print Date 2/12/2014

Page Number 1 of 2

Order From :

VU-BEA001

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
62/1/02/12

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx PI collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

M/12/25-7

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	MS21075L3N <i>3/8</i>	NUT PLATE	2/14/2014 No 2/14/2014		500.00 ✓ Each	\$0.35	\$175.00
Line Total:							\$175.00
2	NAS1149D0563J <i>5/10A</i>	Washer	2/14/2014 Yes 2/14/2014	FN	2,000.00 ✓ Each	\$0.03	\$60.00
Line Total:							\$60.00
3	AN6-13A <i>235</i>	BOLT	2/14/2014 Yes 2/14/2014		100.00 ✓ Each	\$0.47	\$47.00

P/14/2/18

PO Instructions: Procurement Quality Clauses
A005 RIGHT OF ENTRY
A012 CHEMICAL AND PHYSICAL TEST REPORTS
A016 PERSONNEL QUALIFICATION
A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT
A033 STATEMENT OF CONFORMITY/TEST RECORDS FOR NAS, AN and MS FASTENERS
A041 QUALITY

Note:



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO22981

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
1	500	EA	MS21075L3N		9524006119	ITW CIP GALLATIN, TN 55H08			


Jason Lewis
Vice President of Quality

02/14/14



850 STEAM PLANT ROAD
GALLATIN, TN 37066
(615) 452-1002

REMIT TO:
33355 TREASURY CTR.
CHICAGO, ILL 60694-3300

SHIPPER/PKG. LIST

SID NUMBER	DATE
706988	04/29/09

SID

** PAGE 1 **

S
O
L
D

T
O

M & M
P.O. BOX 981157

EL PASO TX 79998-1157 USA
CONV ID: 3112

S
H
I
P

T
O

M & M
700 HENRIETTA CREEK ROAD

ROANOKE TX 76262
DOCK:

PLIER NO.	A.E.T.C. NO.	F.O.B.	CUST. NO. - DEST. NO.	FREIGHT			SHIPPER NO.
			99444	PP & INV	COL	PPD	
		GALLATIN, TN	79444		X		706988

MARKS	SHIP VIA	ROUTING
	YELLOW FREIGHT	310

QUANTITY SHIPPED	CUSTOMER PART NO.		NET WEIGHT		CONTAINERS		CUMULATIVE
	WORK ORDER NO.	CUSTOMER ORDER NO.	QTY.	TYPE			
4000	MS21075L3N		14		1 CTN25		78144
	A10008-037-105	1001138	EA				
	NUT STEEL						
	REL#: TWX 03/13						
	RAN#: ABCEHPUV						
	LOT#/QTY:		/ 4000				
496000	MS21075L3N		1736		50 CTN25		574144
	A10008-037-105	1001138	EA				
	NUT STEEL						
	REL#: TWX 03/13						
	RAN#: ABCEHPUV						
	LOT#/QTY:		/ 496000				
	LOT#/QTY: 9524006119		/ 272000				
	LOT#/QTY: 9524007119		/ 212000				
	LOT#/QTY: 9524009119		/ 16000				
SIGNATURE _____			TRAILER# _____				
PRO# _____			DATE _____				

CONTAINER SUMMARY, COMMODITY DESCRIPTION, WEIGHTS PL-PALLETS • CT-CARTONS LOOSE • CR-CRATES • O-OTHER

SHIPPER LOAD AND/OR CONSIGNEE UNLOAD

-COLLECT-

CTN25

NTWHT TARE GROSS

CLASS 50

AUTO NUTS/STEE

see terms and conditions located at www.itwautomotive.com

63
51 1801

4/29/09

63

I hereby certify that these goods were produced in compliance with all applicable requirements of section 6, 7 and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor, issued under section 14 thereof.

SIGNATURE OF TRAILER NO. 51 1801

ACCOUNTING CODE



ITW CIP Aerospace

850 Steam Plant Rd.
Gallatin, TN 37066
Phone: (615) 452-1002
Fax: (615) 452-2092

Certificate of Conformance			
Customer: M & M Aerospace 700 Henrietta Creek Rd. Roanoke, Tx. 78262-8398		Certificate of Conformance certifies that the fasteners in this shipment have been manufactured in accordance with ITW's quality system manual, applicable drawings and specifications, dimensional, mechanical, metallurgical and finish tests were performed and conform to said specifications. Traceability information is maintained and on file by lot number. We certify that this lot was manufactured free from Mercury, Radium, Alpha source contamination and Ozone depleting substances.	
Quantity P.O. # Shipper #	272,000 1001138 706988		
MADE IN U.S.A.			
ECCN: 9A991.d		Schedule B: 7318.16.0000	
HTS: 7318.16.0030			
Part #:	MS21075L3N	Revision:	1
Lot #	9524006119	Cert. Date:	4-30-09
Description: Nut, Self-Locking, Plate, Two-Lug, Floating			
Procurement Spec:	NASM 25027	Nut Heat #:	1723851
Material Spec.:	AMS-5085G	Cage Heat #:	1724218
Raw Mat'l Cert:	(See Attached)	Supplier:	Steel Tech
MECHANICAL TESTING			
ULTIMATE TENSILE STRENGTH POUNDS (See Attached)		PUSHED OUT POUNDS (See Attached)	
STRESS EMBRITTLEMENT (See Attached)		HARDNESS ROCKWELL "C" SCALE (See Attached)	
LOCKING TORQUE (See Attached)		TORQUE OUT (See Attached)	
METALLURGICAL TESTING			
Discontinuities: See Attached	Surface Contamination See Attached	Grain Flow See Attached	Microstructure See Attached
SPECIAL PROCESSES:			STAMP
HEAT TREAT: Per Print Specification			
FINISH: Cadmium Plate per AMS-QQ-P-416 Rev. B-Type II, Class 2 + Dry Film Lubricant			
THREADS: .190-32 UNJF-3B			
NDT: See Attached		Accepted 32	Rejected 0
STAMP 	AUTHORIZATION QUALITY REPRESENTATIVE: 		DATE: 4-30-09



ITW CIP Aerospace
850 STEAM PLANT RD., GALLATIN, TN 37066
CERTIFICATION / TEST REPORT

Customer Name: **M & M**

Page 1 of 3

Test Report Number: **74** Issue Date: **4-28-09**

Part Number: MS21075L3N Rev: 1 ITW/CIP# A10008-037-105

Part Description Nut, Self-Locking, Plate, Two Lug, Floating

Lot Number: **9524006119**

Procurement Specification: NASM 25027

Inspection Lot Size: **272,000**

Thread Size: .190-32 UNJF-3B

CHEMISTRY

Raw Material Supplier: **StarK**

Raw Material Specification: **AMS 5085G**

Nut Heat Number: **1723851**

Cage Heat Number: **1724218**

Tested by: **StarK**

Lab Report Number: **ITW014-12-15-36015-1**

Lab Report Number: **77869**

Conforming:

(Yes) No

Requirement	Results						Test Method * Pass/Fail
Axial Test: 2,460 (LB) min. 27 pcs.	3216	3112	3008				Lab Tech: <i>[Signature]</i> Results: PASS Date: 4/28/09
	3333	3082	2996				
	2860	3064	3120				
	2820	3116	3144				
	3112	3096	2984				
	3006	3122	3162				
	3184	3168	3098				
	3206	3092	3108				
	3180	3074	3166				
Push Out: 100 (LB) min. 27 pcs.	287	246	285				Lab Tech: <i>[Signature]</i> Results: PASS Date: 4/28/09
	242	295	231				
	351	249	225				
	257	294	224				
	171	301	255				
	261	257	249				
	244	237	233				
	152	224	331				
	323	305	346				
Torque Out: (IN-LB) 60 min. 27 pcs.	141.0	150.0	160				Lab Tech: <i>[Signature]</i> Results: Pass Date: 4/28/09
	144.0	151	158				
	78.1	167	138				
	81.5	151.0	155				
	141.0	168	175				
	159.0	155	158				
	146.0	155	163				
	138.0	160	145				
	127.0	156	176				

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Requirement	Results										Test Method * Pass/Fail
Prevailing Torque: (IN-LB) 18.0 Max 2.0 min 27 pcs.	1ST ON	BKW	1ST OFF	7TH ON	BKW	7TH OFF	15TH ON	BKW	15TH OFF		Lab Tech: <i>[Signature]</i> Results: PASS
	11.90	11.10	10.50	9.96	10.20	8.38	10.10	10.40	8.35		
	10.10	10.60	10.30	9.60	9.89	8.38	8.13	8.38	8.02		
	9.93	8.97	8.13	8.05	7.83	7.06	7.91	7.65	6.73		
	10.40	8.57	8.57	7.24	6.84	6.69	6.66	6.80	6.80		
	10.50	9.74	7.68	8.49	8.05	6.88	7.24	7.28	6.40		
	10.90	10.30	9.71	11.40	11.90	9.82	11.10	11.60	9.12		
	15.20	14.00	13.50	13.50	12.40	12.00	12.40	10.80	11.30		
	7.92	5.11	4.89	4.19	4.08	3.90	3.71	3.75	3.60		
	11.40	10.70	10.30	11.10	10.50	8.64	10.30	10.40	7.68		
	8.79	8.05	7.57	6.99	7.06	6.95	7.43	7.68	7.06		
	14.30	11.30	9.88	12.40	10.40	7.10	10.10	9.60	6.32		
	17.40	15.70	13.80	14.60	14.00	12.10	13.30	13.20	11.89		
	11.00	8.84	8.20	8.46	8.24	7.43	8.35	8.16	7.98		
	6.99	6.56	5.29	6.03	5.66	4.19	5.07	4.89	4.12		
	6.88	6.18	5.11	5.55	5.29	4.19	4.78	4.85	4.18		
	11.30	11.40	12.40	10.10	10.60	11.00	11.00	10.10	10.00		
	11.10	11.10	12.10	9.41	9.45	9.63	9.01	9.01	9.12		
	13.30	13.10	13.20	14.30	14.10	12.30	12.90	12.60	10.80		
	12.10	10.70	11.40	9.41	9.30	9.71	8.90	8.64	9.12		
	12.40	11.80	11.40	11.40	11.10	10.80	11.60	11.00	11.30		
	6.70	4.96	4.38	4.16	3.97	3.64	3.71	3.53	3.24		
	14.90	13.40	13.00	11.50	11.70	9.56	9.78	10.00	8.94		
	6.77	5.59	4.56	4.19	3.80	3.53	3.75	3.57	3.31		
	13.80	13.30	10.70	11.00	11.00	8.68	9.49	9.56	8.24		
	13.80	9.71	9.01	9.78	8.31	8.38	7.12	7.46	6.99		
	11.10	10.20	8.75	7.57	7.24	6.43	7.35	7.17	6.25		
	14.70	13.10	15.10	16.60	14.30	14.30	15.80	14.10	13.80		
											Date: 4/28/09
Hardness 49 HRC Max. 15 pcs.	N15	HRC	N15	HRC	N15	HRC					Lab Tech: <i>[Signature]</i> Results: PASS
	81.7	42.4	80.7	40.6							
	82.3	43.6	80.7	40.6							
	81.7	42.4	82.2	44.4							
	80.6	40.4	80.8	40.8							
	80.8	40.8	80.0	39.2							
	83.2	45.4	80.8	40.8							
	80.2	39.6	81.7	42.4							
	80.5	40.2									
											Date: 4/28/09
Rivet Hole to Rivet Hole: .500 + .002 32 pcs.	.501	.500	.501	.500							Inspector: <i>[Signature]</i> Results: PASS
	.500	.501	.501	.501							
	.501	.501	.501	.601							
	.500	.501	.501	.500							
	.501	.501	.501	.501							
	.501	.500	.501	.501							
	.501	.500	.501	.501							
	.500	.501	.501	.500							
											Date: 4/28/09

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Requirement	Results							Test Method * Pass/Fail
Minor Diameter: .1596~.1675 15 pcs.	.163	.162	.162					Inspector: <i>Joneth</i> Results: PASS Date: 4/28/09
	.161	.162						
	.161	.161						
	.162	.163						
	.162	.162						
	.162	.162						
	.161	.161						
Thread Gage: .190-32 UNSF-3B 32 pcs.	Threads OK per thread gage.							Inspector: <i>Joneth</i> Results: PASS Date: 4/28/09
Missing Lock Lock Feature and Free Float: 100 pcs.	Visual for locks and free float OK.							Inspector: <i>Joneth</i> Results: PASS Date: 4/28/09

Package to Include:

- ☒ Steel Heat(s) Certification (Both Certs Nut and Cage)
- ☒ Atlas Stork Test Report(s) (Heat Numbers must match that on Steel Heat Certific
- ☒ Copy of Label with all required information
- ☒ Copy of Shipper
- ☒ Copy of Finish Certification Testing
- ☒ Copy of Magnetic Particle Testing
- ☒ Copy of Stress Embrittlement Certificate
- ☒ Copy of Certificate of Conformance

MTA
3063


* NOTES:

The results relate to only items tested

Approved By: Frank Romero
PRINT

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Signature: *[Signature]*Title: Q/A Manager



STRAIGHT BILL OF LADING-SHORT FORM
ORIGINAL-NOT NEGOTIABLE

1050 X 0410 X 01900

SHIPPER'S NO. 17030688



CARRIER: DX DRIVEN LLC

DLIC

PAGE 1 REF#:

Received, subject to the classifications and tariffs in effect on the date of the issue of the Bill of Lading

FROM OTTAWA, OH 12/10/2008

The property described below, in apparent good order, except as noted (contents and condition of contents of package unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination if on its route otherwise deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination and as to each part at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIP TO : 08699
ITW CIP FASTENERS
850 STREAM PLANT ROAD

SOLD TO :
ITW - CIP FASTENERS
850 STEAM PLANT ROAD

GALLATIN,
DUNS # 363569898

TN 37066 GALLATIN,
DUNS # 363569898

TN 37066

NUMBER AND DESCRIPTION OF ARTICLES

* WEIGHT (Sub. to Cor.)

DELIVERING CARRIER

PO 95282 PART #

REL # COLD ROLLED STRIP STEEL

1050/

.0390/ .0430 X 1.9000

SERIAL# HEAT

PCS

ENGLISH

LB

172385100144936 1723851

77184

6

4995

172385100144937 1723851

77184

6

4995

172385100144940 1723851

77184

6

4589

172385100144941 1723851

77184

6

4654

172385100144945 1723851

77186

6

4864

172385100144946 1723851

77186

6

4904

172385100144949 1723851

77186

6

4519

172385100144950 1723851

77186

6

4564

---MATERIAL CERTIFICATION---

C MN P S AL SI
.540 .730 .008 .001 .034 .200

CB CU N CR MO V NI B TI
<.008 .030 .0031 .040 .013 .003 .010 .0010 .003 .0010

HARDNESS

RB 072/076

CA

S/O 19025

TOTALS

48

38084

NO OF LIFTS 08

48

38084

LOADING INSTRUCTIONS FORKLIFT REAR - VAN ONLY

* LOAD MUST BE TARPED *
* OR WEATHER PROTECTED *

RECEIVING HRS.

0456 AM - 0456 AM

VEHICLE

IDENT 019

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Steel Technologies
By (Signature of Consignor)

If the shipment moves between two ports by a carrier by water the law requires that the bill of lading shall state whether it is carrier's or shipper's weight. Note-Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

Per (Signature of Consignor)

PREPAID

If charges are to be prepaid, write or stamp here: "TO BE PREPAID"

Received \$
to apply in prepayment of the charges on the property described hereon.

Per (Signature of Agent)

(The signature here acknowledges only the amount prepaid)

Charges Advanced: \$

SHIPPER: Steel Technologies

PER:

CARRIER:

PER:

Ray M...

Permanent Address of Shipper:

STEEL TECH - OTTAWA
740 WILLIAMSTOWN ROAD

OTTAWA

OH 45875

Lenny
1-502-245-2110

Nut
PO 1001138
lot 9524006119
BR
4-30-09



Randy Keene

Certification of Material Analysis

Customer: ITW - CIP FASTENERS Part#:
Shop Order#: 17 19265 Size: .0250/.0290 X 2.2000
Heat Number: 17 24218 Product Type: COLD ROLLED STRIP STEEL
Ordered Analysis(AISI/SAE#): 1050
Customer P.O.#: 95282 SPEC#

Chemical Element	C	Mn	P	S	Al	Si	Cb	Cu	N	Cr	Mo	V	Ni	B
Weight %	.540	.680	.007	.001	.031	.190	<.008	.040	.0030	.030	.009	.003	.010	.0003
The above Chemical Analysis conforms to ASTM E1019 & E415													Ti	Ca
													.003	.0010

Property	Yield(psi)/(MPa)	Tensile(psi)/(MPa)	Elongation(%)	Hardness(Rb, Rc, T, & N)	n-Value	Coating Wt.	Avg. Thickness
Test Value	0/0.00	0/0.00		RB 73/73	.999		

The above Mechanical Testing conforms to ASTM E8, E18, E643, also JIS Z2201(If Applicable)

Property	Grain Structure	Inclusion	Carbide Morphology	Microhardness(Knoop)	Decarburization(inches)	Surface Roughness(Ra) Micro Inch/Micro Meter
Test Value	FINE	A1T,D1T	SPHER.		.00	/ / /
The above Metallographic Testing conforms to ASTM E112, E45, E1181, E1077, & E384 Steel Technologies is in conformance with all purchase order requirements					JK AH AT BH BT CH CT DH DT	Rating

Richard L. Reeves

STEEL TECHNOLOGIES Rep.

Shawnee Rd.
Eminence, KY. 40019
TESTING FACILITY
Shawnee Road
Eminence, KY. 40019

This Certificate shall not be reproduced, except in full, without approval of STTX

Comments:

Cage
70 1001138
lot 9524006119
BR
4-30-09



BODYCOTE TESTING GROUP
MATERIALS TESTING DIVISION
2090 East 15th Ave.
Gary, IN 46402
219-882-4283

INTERIM REPORT

TEST REPORT

16:27

Customer: Steel Technologies, Inc.
186 Shawnee Road
Eminence, KY 40019
Attn: Gerald Klingenfus

Issue Date: February 05, 2009
Manifest No.: 0901363
Purchase Order No.: 673000
Received : 02/04/09

Bend Test Results

Lab Customer ID Identification	Gage (Inches)	Dir.	Radius	Diameter	Degree	Result
003 77873		T		2T	180	Pass
007 77869		T		2T	180	Pass

Cage
PO 1001138
lot 9524006119
BL
4-30-09



We hereby certify that the test results contained in this report are in CONFORMANCE with the physical property requirements of AMS 5085F.

Specimen preparation and testing performed in accordance with: ASTM A370 (Latest edition).

This is to certify that the test results as contained in this report are those as contained in the company records. Test results shown in this report relate only to the items tested. Information contained in this report regarding identification, material and/or sampling procedure is based on customer furnished information and is shown for reference purposes only.

Gary Richter
General Manager

By:

Carmy Munoz
Supervisor

Bodycote Testing Group is accredited by The American Association for Laboratory Accreditation (A2LA Cert No. 188.01) in the field of Mechanical Testing, Chemical Testing, and Metallographic Analysis. This report shall not be reproduced except in full without the prior written approval of Bodycote Testing Group.

BODYCOTE TESTING GROUP
MATERIALS TESTING DIVISION
 2090 East 15th Ave.
 Gary, IN 46402
 219-882-4283

INTERIM REPORT

TEST REPORT

1627

Customer: Steel Technologies, Inc.
 196 Shawnee Road
 Eminence, KY 40019
 Attn: Gerald Klingertus

Issue Date: February 05, 2009
 Manifest No.: 0901363
 Purchase Order No.: 673000
 Received: 02/04/09

Chemical Analysis, Iron Base (Wt%)																
Lab ID.	Customer ID.	Grade	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	V	Ti	Cb	B
001 77872			0.53	0.67	0.008	0.004	0.19					0.05				
005 77869			0.54	0.68	0.008	0.002	0.21					0.03				

Cage
 PO 1001138
 lot 9524006119
 BR
 4-30-09



We hereby certify that the test results contained in this report are in CONFORMANCE with the chemical property requirements of AMS 5085F.

Specimen preparation and testing performed in accordance with: ASTM E415 (Latest edition).

This is to certify that the test results as contained in this report are those as contained in the company records. Test results shown in this report relate only to the items tested. Information contained in this report regarding identification, material and/or sampling procedure is based on customer furnished information and is shown for reference purposes only.

Gary Richter
 General Manager

By:
 Supervisor

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Itw / Cip Fasteners
850 Steam Plant Road
Gallatin, TN 37066
CONTACT: Doug Bagwell
DATE: 12/16/2008
P.O. NO.: 49256

W/O NO.: ITW014-12-15-36095-1

2 Pheasant Run
Newtown, PA. 18940
USA

Telephone : (215) 579-7500
Telefax : (215) 579-7591
Website : www.storksmt.com/mma

CERTIFICATION OF TESTING
ALL TESTING PERFORMED IN A MERCURY-FREE ENVIRONMENT

HEAT NUMBER 1723851
DESCRIPTION 0.041 x 1.900 Test Strip
SPECIFICATION AMS5085G

AMS5085G (1050)

Element		Result %	Min %	Max %
C	=	0.52	0.47	0.55
Mn	=	0.74	0.60	0.90
P	=	0.008	0.000	0.040
S	=	0.001	0.000	0.050
Si	=	0.19	0.10	0.35
Fe	=	BALANCE	BALANCE	BALANCE

Chemical testing was performed on an Optical Emissions Spectrometer in accordance with ASTM-E415-99a (2005)


Bend Test Results

Number of samples tested: 1
Sample was cold bent: 180°
In accordance with: ASTM-A370-08
Bend factor: 2x thickness

No evidence of ruptures was observed. Axis of bend was parallel to the rolling direction. PASS

Not
PO 1001138
lot 9524006119
BR
4-30-09 *ILK*



 <p>0478-1 0478-2</p>	Respectfully submitted
	<p><i>Hene Landis</i> Hene Landis Quality Administrator</p>
<p>The analysis reported on this certification has been performed in accordance with Stork MMA Quality Manual, 3rd Edition Rev. 0 Dated 04/30/07 and related procedures. The samples tested or inspected on this Certification are Certified only for the testing performed. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes.</p>	
<p>Stork Materials Testing and Inspection is an operating unit of Stork materials Technology B.V., Amsterdam, The Netherlands, which is a member of the Stork group</p>	

Material Testing and Non-Destructive Testing

Itw / Cip Fasteners
850 Steam Plant Road
Gallatin, TN 37066
CONTACT: Doug Bagwell
DATE: 12/16/2008
P.O. NO.: 49256

W/O NO.: ITW014-12-15-36095-1

2 Pheasant Run
Newtown, PA. 18940
USA

Telephone : (215) 579-7500
Telefax : (215) 579-7591
Website : www.storksmt.com/mma

CERTIFICATION OF TESTING
ALL TESTING PERFORMED IN A MERCURY-FREE ENVIRONMENT

Decarburization Check Via Microhardness
(500g LOAD) IAW ASTM-E384-08
(Requirements = hardness difference between surface and ½ thickness
shall not exceed 2 units on the HRA scale)

Depth from Surface (in)	Diagonal (µm)	Hardness (HK)	Conversion To Rockwell HRA Scale
0.002	104.6	650.3	79
½ Thickness	98.9	727.4	81

Conversions to Rockwell scales are approximations only and are based on ASTM-E140-07.

Grain Size Determination
Requirements = 5 or finer



Quantity tested: 1
Etchant used: 3% Nital
Samples were heat treated and quenched from the austenitizing temperature but not exceeding 1550 °F, mounted, polished and etched IAW Stork MMA SOP 60.20 Rev. 7 to reveal the structure. The samples were then optically evaluated at 100X per ASTM-E112, Plate 1B using a Nikon Optiphot metallurgical microscope.

RESULTS ARE AS FOLLOWS:
Average ASTM grain size is: Number 8.5

Nut
PO 1001138
lot 9524006119
BR
4-30-09

Four tests listed on this certification have been performed in accordance with AMS5085G and all tested samples do conform to the specification requirements.

ICR

 0478-1 0478-2 ACCREDITED	 INSPECTION	Respectfully submitted <i>Ilene Landis</i> Ilene Landis Quality Administrator
The analysis reported on this certification has been performed in accordance with Stork MMA Quality Manual, 3 rd Edition Rev. 0 Dated 04/30/07 and related procedures. The samples tested or inspected on this Certification are Certified only for the testing performed. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes.		
Stork Materials Testing and Inspection is an operating unit of Stork materials Technology B.V., Amsterdam, The Netherlands, which is a member of the Stork group		



TESTING GROUP
www.bodycote.com
www.bodycotetesting.com

Test Report

Steel Technologies
740 Williamstown Rd.
Ottawa, Ohio 45875
Attn: Ed Karsnak

Manifest No.: 09-01363
Date Received: 02/04/2009
Date Reported: 02/11/2009
PO No: 17-2009-2588

Evaluation of Average Grain Size and Decarburization Degree

Prod 24218
Sample: Prod # 77869
Corf

Cage
PO 1001138
lot 9524006119
BR
4-30-09

Tested In As Received Condition

1. Average Grain Size (Microscopic Visual Evaluation)

Pass	ASTM No: 12.0
------	---------------

Tested After Heat Treatment 1600°F/ water quench

2. Complete Decarburization (Microscopic Visual Evaluation):

Pass	NONE
------	------

3. Partial Decarburization (Microhardness Vickers 500g load Method, Conversion to HRA Scale)

	Hardness at Surface (HRA)	Hardness at 0.020" (1/2T) (HRA)	Hardness Difference (HRA)
Pass	82.1	82.2	0.1

The test results contained in this report are in Conformance with the requirements of AMS 5085F Par.3.3.2 and 3.3.3.

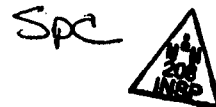
Specimen preparation and testing performed in accordance with: AMS 5085F, ASTM E3-01, E112-96(04)e1, E140-05e1, E407-99, E384-05a and E1077-01(05).

This is to certify that the test results as contained in this report are those as contained in the company records. Test results shown in this report relate only to the items tested. Information contained in this report regarding identification, material, and/or sampling procedure is based on customer furnished information and is shown for reference purposes only.

Gary Richter
Laboratory Manager

By:

John Bielecki
John Bielecki
Metallurgist



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Son Set Consultants

PO Box 1536
7679 North 140th East Ave.
Owasso, OK 74055
918-633-0740

E-Mail: Rick@weld-procedure.com, WEB: www.weld-procedure.com

Page 1 of 1

MIL STD 1312-14 Stress Embrittlement testing / NASM 1312-14 Stress Embrittlement testing

REPORT OF EXAMINATION

CUSTOMER: ITW CIP Stampings JOB NUMBER: MS21075L3N Lot # 9524006
FASTENER DESCRIPTION: Nut Self Locking Plate PART NUMBER: MS21075L3N Lot # 9524006
MANUFACTURER: ITW CIP Stampings PART MATERIAL / FINISH: 1050 / Cadmium Plate
per AMS-QQ-P-416 Rev B Type II, Class 2
with dry film lubricant

NOTE* Fastener information needed prior to performing the Stress Embrittlement testing:

1. Fastener material type / material finish - 1050 / Cadmium Plate per AMS-QQ-P-416 Rev B Type II, Class 2, with dry film lubricant
2. Fastener thread size & type - 190-32 UNJF-3B
3. Fastener description - Nut Self Locking Plate
4. Test time required - 23 hours min hold time

INSTALLATION TORQUE, ELONGATION OR LOAD: 2460 lbs min load

TEST METHOD USED: extension method

TEST (PART HOLD ON LOAD / STRESS) TIME: 23 hours hold time

EXTERNALLY THREADED MEMBER (BOLT) USED: 10-32 1" long / AISI 1050 heat treated to 45HRC

CALCULATIONS IF APPLICABLE: $e = 0.090893$

$$e = \frac{E}{E} \left[X + 0.75Z + \frac{YR^2}{S^2} - Y \right]$$

NDE PROCEDURE NO: Florescent Penetrant Test per SSC-PT-1-Rev#0

TYPE: fluorescent penetrant inspection

LIGHTING EQUIPMENT: Florescent Light, Model # SB-100P, Serial # SSC#BL#003

TEST RESULTS

LOCATION AND DESCRIPTION OF INDICATIONS IF ANY (Such as Linear or Rounded, Cracks, Seams, Laps, Cold shuts, Laminations, Surface porosity, and Lack of fusion.)

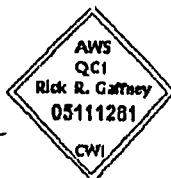
No Indications noted

NDE EXAMINER: Rick R. Gaffney NDE Level III LEVEL II / or Level III
NAME

DATE: 25-Apr-2009

Son Set Consultants
OK ATF #PL-38
ANSI ATF #00101
Rick R. Gaffney
API 510 # 1400

Rick R. Gaffney





Son Set Consultants

PO Box 1536
(7679 North 140th East Ave.)
Owasso, OK 74055
918-633-0740
www.weld-procedure.com

Magnetic Particle Examination Record

Customer: ITW CIP Stampings Date: 25-Apr-2009
 Lot No.: 9524006 Reference Code/Specification: ASTM E1444-05
 MT Procedure No.: MT-01 Rev. No.: 1 Serial No. 13787 Technique: X Voke / Prods
 Magnetizing Equipment: Parker Research DA-400
 Current Type: X A/C D/C Magnetic Particle Type: X Wet Dry X Fluorescent Visible
 Amperage (Prod Technique Only) N/A Amps/inch of Prod Spacing Prod Spacing N/A
 Part/Item Material Type: Fastener / CS
 Lighting Equipment: X Fluorescent Light Model # SB-100P Serial # SSC#BL#003
 White Light using Parker Research Y300 or Y400 Probe light
 Flashlight # of Batteries: Type: cell Max. Distance from object: 3-4 "
 Other:
 Light Intensity on surface to be examined: 100 foot candles ~W/cm²
 Light Intensity Meter: Model # 401025 Ser.# LM-1 Calibration Due Date 01-Jan-2010
 Comments: No Rejectable Indications Noted

Examination Results			
Item #	Part Identification	Accept / Reject	Indication Description
1 - 32 each	32 each Fastener Part No. : MS21075L3N Lot # 9524006	ACCEPT	No Rejectable Indications Noted

Examiner: Rick Gaffney

Qualification Level: MT Level III

Son Set Consultants
OK ATF #PL-38
AWS ATF #00001
Rick R. Gaffney
API 510 # 1400

Rick R. Gaffney



HEARTLAND PRECISION FASTENERS

301 Prairie Village Drive

New Century, Ks. 66031

Ph: (913)829-4447

Fax: (913)829-7282

DATE 4/23/09

I.T.W. / C.I.P. TENNESSEE

850 STEAM PLANT RD.

GALLATIN, TN 37066

PROCESS PER: AMS-QQ-P-416 REV-B

: DRY FILM LUBRICANT PER NASM 25027

I.T.W. P.O. # 49106-6632

I.T.W. LOT # 9524006

H.P.F. LOT # 35724

I.T.W. PART # MS21075L3N

WEIGHT = 1178 LBS.

**Heartland Precision Fasteners certifies that the above parts have
Undergone embrittlement relief within 2 hours of plating via baking at
375 degrees, +/- 25 degrees, for a minimum of 23 hours.**

Authorized Signature:


Jefferson Robbins



INTERIM REPORT

BODYCOTE TESTING GROUP
MATERIALS TESTING DIVISION
2090 East 15th Ave.
Gary, IN 46402
219-882-4283

TEST REPORT

18:27

Customer: Steel Technologies, Inc.
196 Shawnee Road
Eminence, KY 40019
Attn: Gerald Klingenfus

Issue Date: February 05, 2009
Manifest No.: 0901363
Purchase Order No.: 673000
Received : 02/04/09

Rockwell Hardness Test Results

Lab Customer ID Identification	Hardness Value (Rockwell)	Hardness Value (Converted)
002 77873	72 HRC	
006 77869	66 30T	74 HRC

Cage
PO 1001138
lot 9524006119
BK
4-30-09



We hereby certify that the test results contained in this report are in CONFORMANCE with the physical property requirements of AMS 5085F.

Specimen preparation and testing performed in accordance with: ASTM E18 (Latest edition).

Note: Samples listing "Converted" results have been converted in accordance with ASTM E140. Original test results are listed as "Rockwell" results. Converted data is shown for reference purposes only.

This is to certify that the test results as contained in this report are those as contained in the company records. Test results shown in this report relate only to the items tested. Information contained in this report regarding identification, material and/or sampling procedure is based on customer furnished information and is shown for reference purposes only.

Gary Richter
General Manager

By:
Supervisor

Bodycote Testing Group is accredited by The American Association for Laboratory Accreditation (A2LA Cert No. 188.01) in the field of Mechanical Testing, Chemical Testing, and Metallographic Analysis. This report shall not be reproduced except in full without the prior written approval of Bodycote Testing Group.



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO22981

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
4	120	EA	AN4-42A		323300	CAL SCREW	82507		


Jason Lewis
Vice President of Quality

02/14/14



CALIFORNIA SCREW PRODUCTS CORPORATION
14957 GWENCHRIS COURT
PARAMOUNT, CALIFORNIA 90723-3423
TEL (562) 633-6626
FAX (562) 633-2082

PACKING SLIP

Original : 28769

Sold To:
003635 B/E AEROSPACE CONSUMABLE MANAGEMENT P.O. BOX 025263 MIAMI, FLA 33102-5263

Ship To:
***** B/E AEROSPACE CONSUMABLE MANAGEMENT 9835 NW 14TH ST. MIAMI, FLA 33172

Customer P.O. No.		Sales Order	Date	Ship Via		Job No.
OYN947		46954	09-16-11	FED EX GROUND/WATKIN		323300
Pos	Item	Ordered	Delivered Qty	Unit	Weight	No. of Cartons

10	AN4-42A	5556	5556	ea	363	11
----	---------	------	------	----	-----	----

Honeywell Source Accepted:	
Stamp Impression _____	
Date _____ SEP 16 2011	
RMRA # _____	

CALIFORNIA SCREW PRODUCTS CORP.

14957 GWENCHRIS COURT

PARAMOUNT, CALIF. 90723-3423

CAGE NUMBER : 82507

Job Number : 323300

Airbus UK Approval No. AUK/SA/30144

BAE/AG/30235 / MAA

TEST REPORT

Part Number : AN4-42A
 Customer : B/E AEROSPACE CONSUMABLE MANAGEMENT
 Procurement Spec. : NASM6812 REV. 2
 Surface Finish Spec : AMS-QQ-P-416 REV. C
 Heat Treat Spec : AMS2759/1 REV. E
 Mgmtc Permeability : N/A

Part Standard : NASM3-20 REV. 2
 Cust. Purchase Order Number : 0YN947
 Thread Size & Form : .250-28 UNF-3A
 Thread Spec : MIL-S-7742 REV. D
 Sample Size Spec. : NASM6812 REV. 2

Shipped Quantity* : 5556
 Mfg Quantity : 6000
 Matl Spec : AMS 6322 REV. N
 Item Description : Bolt
 Heat Number : 10073780

* Actual piece count is within +/- 2% of the shown lot quantity.

*** CONFORMS TO REQUIREMENTS OF AN3 THRU AN39 REV. 12
 NON-DESTRUCTIVE TESTS / SUBCONTRACTED (SEE CERTIFICATION)**

Sample Size : 32 specimens Inspection Results : Accept : 32 Reject : 0 specimens
 Magnetic Particle : ASTM E1444-05 Fluorescent Penet. : N/A

METALLURGICAL EXAMINATION RESULTS

Sample Size : 5 specimens Accept : 5 Reject : 0 Lab Mount No. : 41324
 GRAIN SIZE : N/A HEAD STRUCTURE : Accept LAPS : Accept MICRO STRUCTURE : Accept
 FILLET COLD WORKED : Accept DECARB : Accept SEAMS : Accept CARBURIZED : Accept
 GRAIN FLOW HEAD : Accept GRAIN FLOW THREAD : Accept CRACKS : Accept THREAD RUN OUT : Accept

MECHANICAL TESTS RESULTS

ULTIMATE TENSILE STRENGTH (lbs.) : Loc. of Failure : Threads Minimum Req. : 4080
 Sample Size : 5 specimens Accept : 5 Reject : 0 Maximum Req. : 0

1. 5516	2. 5699	3. 5494	4. 5614	5. 5495	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

SHEAR (lbs.) S/D : SINGLE Sample Size : 5 specimens Accept : 5 Reject : 0 Minimum Req. : 3680

1. 4606	2. 4316	3. 4403	4. 4376	5. 4419	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

HARDNESS TEST Sample Size : 8 Hardness Req. RC : 26-32 Hardness Results : 28-30

STRESS RUPTURE TEST - N/A Load (Lbs.) : 0 Temperature (F) : 0 Periodic test, REF Job No.
 Sample Size : 0 Hours : 0

FATIGUE TEST - N/A Cycles : 0 Min Req. : 0
 Sample Size : 0 Low Load (lbs.) : 0 High Load (lbs.) : 0

TORQUE TEST - N/A Sample Size : 0 Load (Lbs/in) : 0

**DFARS 252.225-7014 ALT. 1
 COMPLIANCE**

STRESS DURABILITY TEST - N/A Sample Size : 0 LOAD (Lbs.) : 0 Hours : 0

STATEMENT OF CONFORMANCE:

This report relates only to items inspected/tested. Deviations from standard test methods, if any, are noted, and results from subcontracted inspection or testing, if any, are identified. All items were manufactured in the USA under a quality management system, which complies with ISO 9001 and with AS 9100. CALIFORNIA SCREW PRODUCTS CORP, hereby states: That the above product is mercury free; that the above listed lot has been produced, sampled, tested, inspected and marked in accordance with all requirements and that the product complies with all specification and contract requirements; that evidence of which is in the files of our company subject to examination. This report shall not be reproduced except in full, without authorized in writing by CALIFORNIA SCREW PRODUCTS CORPORATION.

**MARIA ELENA
 TORRES**

Honeywell Source Accepted:

Stamp Impression

Date

SEP 16 2011

RMRA. #



FINAL INSPECTOR SEP 16 2011

(Name, Signature, Stamp and Date)



WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

Cal Screw Products
14957 Gwenchris Ct.
Paramount, CA 90723
USA

WORK ORDER
083494

CERTIFICATION

HEAT NO.
10073780

SALES ORDER / RLS

839640 / 1

ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CERT# 911.01

J/N 323300

CUSTOMER P.O. 111282	CUSTOMER PART h1196	QUANTITY 2,583 Lbs	CARRIERS 2	LADING NO 00090289	SHIPMENT DATE 06/02/2011			
SPECIFICATION: C048740-102455A A-8740, AQ, SKFG, CHQ WIRE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.245/0.246 Specifications: AMS2301H, AMS6322N, MIL-S-6049A, AMEND. 1, H1196, AMS-S-6049-A								
CERTIFICATION REQUIREMENTS								
Chemical Properties								
C .41	Si .24	Mn .95	P .014	S .013	Cu .14	Ni .43	Cr .41	Mo .21
Physical Properties								
Grain Size	Jominy 1	Jominy 2	Jominy 3	Inclusions	Macro	Cleanliness	Mill Source	
6	5=52	8=44	10=37	S2-R1-C2	GOOD	F&S=0	Charter	
Country of Origin								
USA - DFAR Compliant								
Mechanical Properties								
TEST	UNITS				Results			
Tensile Strength	KSI				83.3			
Yield Strength	KSI				70.8			
% Elongation	%				29			
% Reduction of Area	%				71.6			
Rockwell Hardness B Scale	HRB (s)				86			

RMK 8573
JOSE CERVANTES
6-3-2011

DFARS 252.225-7014 ALT. 1 COMPLIANCE

Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. "The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47."

REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL

Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140. The reported Chemical and Physical Properties are Melt Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.

TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.

DFAR Material per Clauses 252.225-7014 ALT. 1, 252.225-7009, & 225.003(9)

"LATEST REVISIONS OF ASTM"

Material is free of mercury, radium, or alpha contamination.



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080
(262) 268-2400
1-800-437-8789
FAX (262) 268-2570

CHARTER STEEL TEST REPORT Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Los Angeles, CA-90040
Kind Attn : Cert To Contact

J/N 323300

Cust P.O.	6513-3
Customer Part #	8740C1A080-C-R
Charter Sales Order	70011147
Heat #	10073780
Ship Lot #	4026728
Grade	8740 R SK FG AQ 21/64
Process	HRSA
Finish Size	21/64

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Test Results of Heat Lot# 10073780												
Lab Code: 7388	C /	MN /	P /	S /	SI /	NI /	CR /	MO /	CU /	SN	V	
CHEM	.41	.95	.014	.013	.24	.43	.41	.21	.14	.008	.001	
%Wt												
	AL	N	B	TI	NB							
	.027	.0070	.0001	.002	.002							
JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM11	JOM12
	57	57	56	55	52	51	47	44	39	37	37	35
	JOM13	JOM14	JOM15	JOM16	JOM18	JOM20	JOM22	JOM24	JOM26	JOM28	JOM30	JOM32
	35	34	33	32	31	31	30	29	29	29	29	28

JOMINY SAMPLE TYPE ENGLISH = B JOMINY LAB = 0358-01
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1
AMS 2301 FREQUENCY AVERAGE = .03 AMS 2301 FREQUENCY INDIVIDUAL = .06
AMS 2301 SEVERITY AVERAGE = .02 AMS 2301 SEVERITY INDIVIDUAL = .03
CHEM. DEVIATION EXT.-GREEN =

Test Results of Rolling Lot# 1013507					
REDUCTION RATIO = 358:1					
Test Results of Processing Lot# 4026861, 4026728					
	# of Tests	Min Value	Max Value	Mean Value	
TENSILE	2.0	83.9	83.9	83.9	TENSILE LAB = 0358-02
REDUCTION OF AREA	2	63	66	65	RA LAB = 0358-02
ROCKWELL B	2	80	81	81	RB LAB = 0358-02

NUM DECARB = 3 FREE FERRITE DECARB = .000 FREE FERR & PARTIAL DECARB = .001
CP SPHERO % LAB = 0358-02 NUM SPHERO = 3 SPHERODIZATION = 83.3

Specifications: Manufactured per Charter Steel Quality Manual Rev 9.08-01-09
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = COP 3010 Revision = M Dated = 12-MAR-03

Additional Comments: MEETS REQUIREMENTS OF SPECIFICATIONS AMS6322N/AMS2301J/MIL-S-6048A

Jose Cervantes
 6.3.2011

 DPAAS 252-225-7014 ALT. 1
 COMPLIANCE

Charter Steel
Saukville, WI, USA



Janice Barnard
 Manager of Quality Assurance
 07/15/2010

Rem: Load1,Fax0,Mail0

J/N 323300

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Possible Laboratory	Specification
Chemistry Analysis	CSSM, CSCM/CSCR	ASTM E415; ASTM E1019
X-ray Fluorescence Stainless and Alloy Steel	CSCM/CSCR	ASTM E572
Macroetch	CSSM, CSCM/CSCR	ASTM E381
Hardenability (Jominy)	CSSM, CSCM/CSCR	ASTM A255; SAE J406; JIS G0561
Grain Size	CSSM	ASTM E112
Tensile Test	CSSR/CSSP, CSFP, CSCM/CSCR	ASTM E8; ASTM A370
Rockwell Hardness	All labs	ASTM E18; ASTM A370
Microstructure (spheroidization)	CSSR/CSSP, CSFP	ASTM A892
Inclusion Content (Methods A, E)	CSSR/CSSP, CSCM/CSCR	ASTM E45

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/11.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.



RMH 8573
JOSE CERVANTES
6-3-2011
DPA 252.215-7014 ALT. 1
COMPLIANCE



Certification

Tri-J Heat Treating
327 E Commercial St,
Pomona CA 91767
Phone: 909-622-9999 Fax: 909-622-1790

Order No.: 22351
Date: 08/12/2011
Entry Date: 08/10/2011
Page: 1

To: CALIFORNIA SCREW PRODUCTS COR
P.O.Box 228

PARAMOUNT CA 90723

Phone: 562-633-6626

Purchase Order No.: 114041

Job#: 323300

Material: 8740

1

We are pleased to provide you with the following Certification

Quantity	Part Number / Part Name / Part Description	Pounds
6,000	AN4-42A REV NA , NASM3-20 REV 2	400

Heat Treat AMS 2759 / 1 REV E
Harden to specific hardness

Insp. Type	Scale	Minimum	Maximum	Scale	Minimum	Maximum	Value
Customer Requirements:				Results:			
Hardness	HRC	27.0	32.0	Hardness	HRC	28.0	30.0 6.0

Process Steps

Step: 1 Process: Heat Treat

Treat at 1575 F, Dew point 50, Oil Quench at 130 F.(1 Hr Min)

Step: 2 Process: Temper

Temper at 1100 F, 1 Hr for each 400 Lbs. MIN 2 HRS

ISO 9001:2008 REGISTERED



Gary Madrigal
QC Manager
Tri-J Heat Treating

Southwest Plating Company, LLC

1344 W. Slauson Ave.
Los Angeles, CA 90044-2824
Telephone (323) 753 - 3781
Fax (323) 753 - 9472

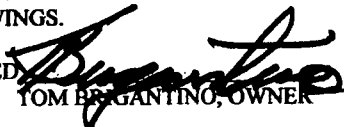
CERTIFICATION

DATE	INVOICE #
9/14/2011	127598

BILL TO
CA Screw Products Corp P.O. Box 228 Parmount, Ca. 90723

SHIP TO
CA Screw Products Corp 14957 Gwen Chris Ave. Parmount, Ca. 90723

P.O. NUMBER	TERMS	REP	SHIP	VIA	F.O.B.	PROJECT
114807	Net 30		9/14/2011			

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
	# OF PIECES	6000	0.00	0.00
	PART NUMBER	AN4-42A REV.N/A NASM3-20 REV.2	0.00	0.00
	PANS	6	0.00	0.00
	JOB NUMBER	323300	0.00	0.00
	POUNDS	400	0.00	0.00
	MATERIAL	8740	0.00	0.00
	THICKNESS	.00035-.00045	0.00	0.00
	41	CAD PLATE TYPE 11 CL 2 PER AMS-QQ-P-416C	0.00	0.00
		.250-28 UNF-3A R/C 27-32 A/P .249-.246		
	CERT	WE HEREBY CERTIFY THAT THE PROCESSING AND INSPECTION PERFORMED ON PARTS BY THIS PURCHASE ORDER ARE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND CUSTOMER DRAWINGS.	0.00	0.00
	SIGN 1	SIGNED  TOM BRAGANTINO, OWNER	0.00	0.00
		DATE 09/14/2011		

Claims must be made within 5 days of receipt of goods. No returns accepted without our approval.

Total

\$0.00

Hadd-Co. Inspection Lab.

Toll Free: (888) 339-8472
Phone: (310) 325-7620
Fax: (310) 325-9655

2420 Amsler Street, Torrance, California 90505
www.Hadd-Co.net E-Mail: haddco@earthlink.net

No. 4913



9/16/2011

TO:

CALIFORNIA SCREW PRODUCTS, INC.
14957 GWENCHRIS CT
PARAMOUNT, CA 90723

DATE :

P.O. NO.:

JOB / LOT NO.:

114917

323300

QUANTITY	PART NUMBER	DESCRIPTION
32	AN4-42A REV. N/A NASM3-20 REV. 2	BOLT MPI PER ASTM E1444-05 NASM6812-2 MAT: 8740 PLATED 32 PC SAMPLE OF 6000 PC LOT

100% INSPECTION
Magnetic _____ Penetrant _____
NO REJECTS
Qty Rejects _____

This is to certify that parts under subject purchase order
have been ☐ Fluorescent Penetrant / ☒ Magnetically inspected
in accordance with applicable and / or purchase order
requirements.



STEPHANIE GARFIELD LEVEL II

INSPECTOR

Note: Altering of this certification renders it void.

B/E AEROSPACE

Part Number: AN4 - 42A		Description: BOLT - MACHINE, AIRCRAFT				Detailed Inspection Plan	
B/E Ctrl #		2011121040			Caliper: 0639151		
B/E PO #		0YN947			Micrometer: 609		
Receiving date		9/29/2011			Johnson Gage: 22098, 22141		
Supplier		California Screw			Pitch Rolls: Ber046		
Mfg		California Screw			Func/Seg: DKC		
Mfg Lot #		323300			Set Plug: 517		
Mill House		Charter Steel			Mag Indicator: 485		
Heat #		10073780			Optical Comp: 110109		
Supplier Lot Quantity		73					
Sample Size		20 / 11					
Date		3/24/2012					
Customer		Sikorsky Aircraft					
Customer PO							
Seq #	Drawing Revision: NASM 3 Thru NASM20 Rev 2	Inspection Method	Inspection Results	Acc	Rej	Notes	
1	Marking:	Visual	C X S	73	0		
2	Visual	Visual	Conforms	73	0		
3	Residual Mag Check	Mag. Ind.	< 1 Gauss	11	0		
4	Thread T Func Dia 1/4-28 UNF-3A	Johnson Gage	.2253 - .2256	20	0		
5	Thread T Pitch Dia .2243 - .2268	Johnson Gage	.2252 - .2254	20	0		
6	Major Dia .2435 - .2500	Micrometer	.2452 - .2457	20	0		
7	A .246 - .249	Micrometer	.246 - .247	20	0		
8	B .428 - .440	Caliper	.431 - .436	20	0		
9	C .510 (REF)	Caliper	.499 - .501	20	0		
10	D .140 - .172	Caliper	.164 - .167	20	0		
11	E 5/16	N/A	N/A	-	-		
12	F .047/.015	Optical Comparator	.027 - .035	20	0		
13	H .398 Min.	Optical Comparator	.400 - .404	20	0		
14	J .070 +.010/-0	N/A	N/A	-	-		
15	K .046 +.010/-0	N/A	N/A	-	-		
16	Length 4-9/32 (4.2812) + 1/32 / - 1/64	Caliper	4.287 - 4.290	20	0		
17	Grip 3-13/16 (3.8125) ± 1/64	Optical Comparator	3.8109 - 3.8120	20	0		
18	.010 ± .005 Radius	Optical Comparator	.011 - .014 R	20	0		
19	Grip Nom + E Nom ± 1/64	N/A	N/A	-	-		
20	Hole Centerline w/in .010	N/A	N/A	-	-		
21	Hole normal to CL w/in 2°	N/A	N/A	-	-		
22	30° ± 5°	Optical Comparator	29° 58' 30°	20			
23	15° ± 5°	N/A	N/A	-	-		
24	D/2	N/A	N/A	-	-		
25	.016 ± .010	Optical Comparator	.016 - .018	20	0		
26	Marking height or depth	Mold/Optical Comp	.012 - .013	20	0		
27	Material: Non -Corrosion Resistant Steel 8740 Per AMS 6322	Cert	WireTech Inc Heat # 10073780	73	0		
28	Finish: Cadmium Plate per AMS-QQ-P-416 TYII CL 2	Cert	Southwest Plating Company Cert # 127598	73	0		
29	Proc. Spec: NASM6812	Cert	California Screw Job # 323300	73	0		
30	Free from burrs/slivers	Visual	Conforms	73	0		
31	Note (6) Dimension are in inches.....	Visual	Conforms	73	0		
32	Ultimate Tensile Strength 4,080	Cert	California Screw Job # 323300	73	0		
33	Yield Strength 3,130	Cert	California Screw Job # 323300	73	0		
34	Single Shear 3,680	Cert	California Screw Job # 323300	73	0		
35	45° ± 5°	Optical Comparator	44° 45' 45°	20	0		
36	Note (7) Dimension apply after finish	Informational	Noted	73	0		
Inspector: Woodrow McDowell				73	0		

Part Number: AN4 - 42A

Sikorsky
1758
DQR

MAR 25 2012



B/E AEROSPACE

Detailed Inspection Plan

Part Number: AN4 - 42A

Description: BOLT - MACHINE, AIRCRAFT

Part Number: AN4 - 42A

		2011121040			
Drawing Revision: NASM 3 Thru NASM20 Rev					
Seq #		Inspection Method	Inspection Results	Acc	Rej
37	Note (8) This standard takes precedence...	Informational	Noted	73	0
38	Note (9) Referenced documents shall be...	Informational	Noted	73	0
39	Note (10) Unless otherwise specified....	Informational	Noted	73	0
40	Visual For FOD	Visual	Compliant	73	0
41					
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81					
Inspector: Woodrow McDowell					
Quality Accept/Reject				73	0

SKORBY
1758
DOR

MAR 25 2012



[illegible]

MAR 25 2012

Form 3: Characteristic Accountability, Verification and Compatibility Evaluation

Sheet 4 of 4

1. Part Number				2. Part Name			3. Serial Number	4. FAI Report	
AN4-42A				BOLT - MACHINE, AIRCRAFT			N/A	Ctrl # 2011121040	
Characteristic Accountability				Inspection / Test Results					
5. Char No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designed Tooling	11. Non-Conformance Number	14a. FAI Inspection Measuring Equipment	14b. Production Inspection Measuring Equipment	14c. FAI Inspector Identification
31	Sh.3	Minor	(6) Dimensions are in inches. UOS Tolerances: Decimals $\pm .010$, Angles $\pm 5^\circ$.	Noted	N/A	N/A	Informational	Informational	122
32	Sh.3	Minor	Ultimate Tensile Strength:2210	California Screw, Job # 323300.	N/A	N/A	Cert	Cert	122
33	Sh.3	Minor	Yield Strength:1690	California Screw, Job # 323300.	N/A	N/A	Cert	Cert	122
34	Sh.3	Minor	Single Shear:2125	California Screw, Job # 323300.	N/A	N/A	Cert	Cert	122
35	Sh.1	Minor	45° $\pm 5^\circ$	45°	N/A	N/A	Opt. Comp.	Opt. Comp.	122
36	Sh.3	Minor	(7) Dimensions apply after Finish UOS.	Noted	N/A	N/A	Informational	Informational	122
37	Sh.3	Minor	(8) This standard takes precedence..	Noted	N/A	N/A	Informational	Informational	122
38	Sh.3	Minor	(9) Referenced documents shall be issue..	Noted	N/A	N/A	Informational	Informational	122
39	Sh.3	Minor	UOS part inventory manufactured to previous Rev...	Noted	N/A	N/A	Informational	Informational	122
40	Sh.1	Minor	Visual for FOD	Conforms	N/A	N/A	Visual	Visual	122
41									
42									
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62									

The signature indicates that all characteristics are accounted for, meet drawing requirements or are properly documented for disposition.

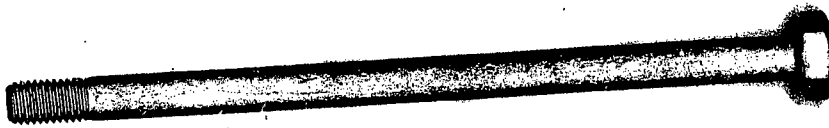
12. Prepared By Naredner Verma

Date:

3/24/2012

SAE AS9102 Revision A

MAR 25 2012



SEKOR-SKY
1758
DQ?

MAR 25 2012

Ctrl# 2011I21040



Part#: AN4-42A
Lot#: 323300
PO#: 0YN947
QTY: 5556



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO22981

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
5	500	EA	MS20470AD4-10		M-617-378	NATIONAL RIVET & MFG	1UGH8		



Jason Lewis
Vice President of Quality

02/14/14

NATIONAL RIVET & MFG. CO.

PHONE: 920-324-5511
FAX: 920-324-3388

21 E. Jefferson Street • P.O. Box 471
Waupun, Wisconsin, U.S.A. 53963

D-U-N-S # 306-9504

ORDER NO. DAB019
DATE OF ORDER 6/ 7/06

DATE
INVOICE
NO.

SHIP <150 LBS-FEDEX GROUND COLLECT/ WATKINS-COLLECT
VIA

F.O.B. OUR PLANT

TERMS NET 30 DAYS

ACCOUNT 13966

SOLD M & M AEROSPACE HARDWARE, INC.
TO P. O. BOX 025263
MIAMI, FL 33102-5263

M-617-378

TERRITORY

SHIP M & M AEROSPACE HARDWARE, INC.
TO 10000 N.W. 15TH TERRACE
MIAMI, FL 33172

N. R.

S
PMT 9/19/06 1017

QUANTITY	DESCRIPTION				PRICE	TOTAL
	P/N MS20470AD4-10 REV. AUG-98 (MS20470AD4-10)					
	SOLID RIVET, .126 DIA X .625 LONG, 2117 ALUMINUM, CHMF ENDS, UNIVERSAL HEAD, T4 HEAT TREAT & YELLOW IRIDIYE DIP FINISH					
=====						
	454 /		x		=	
		samp weight	no. of samps	pieces per pound		
HUMBER	NET WT/	TOTAL	PIECES PER	TOTAL	GROSS WT	TOTAL
CARTONS	CARTON	NET WT	CARTON	PIECES	PER CARTON	GROSS
95	x 20	= 1900				
1	x	11				
96		1911				
TOTAL			TOTAL			
CARTONS			NET WEIGHT	TOTAL PIECES		TOTAL
				SHIPPED		GROSS
			TARE			WEIGHT
			GROSS WEIGHT			
=====						
NOV 10 2006						
=====						
SPECIAL CERT *ROUND WEIGHT UP TO NEXT EVEN POUND						
DATE REQ: 8/13/07						
CALL PAULA FOR LABELS WHEN READY TO SHIP						
PACKING LIST COUNTRY OF ORIGIN: USA						

NOV 10 2006

THANK YOU FOR YOUR ORDER. YOUR ACCEPTANCE OF SHIPMENT OF THIS ORDER CONSTITUTES ACCEPTANCE OF THE TERMS AND CONDITIONS APPEARING ON THE FACE AND REVERSE SIDES OF THIS FORM AND/OR ANY ATTACHMENTS HERETO. THESE LIMIT OUR LIABILITY.

NATIONAL RIVET

& MANUFACTURING CO.

21 East Jefferson Street
P.O. Box 471
Waupun, WI 53963

Phone: 920/324-5511
FAX: 920/324-3388
E-Mail: mail@nationalrivet.com

Date: November 10, 2006

To: M & M Aerospace Hardware, Inc.
Miami, FL

Purchase Order: OAB019

Part Number: MS20470AD4-10 Rev. AUG-98

Production Order No: M-617-378

Date Shipped: 11/10/06

Quantity: 96 cartons
1911#

We hereby certify that the material described above was inspected prior to being released for shipment and was found to comply with the requirements of your order as interpreted by us, using National Rivet & Mfg. Company Engineering and Quality Control procedures.

Wire Company: Nichols, W62600,
Lot Number: K 837958, **Diameter:** .123

Attached is a copy of the certification (furnished to us by our supplier) which covers the raw material used to produce your order.

NATIONAL RIVET & MFG. COMPANY



Liz Busch

Assistant Quality Control Manager
ebusch@nationalrivet.com



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

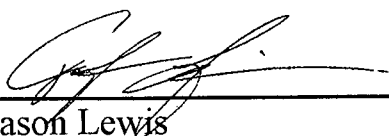
Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO22981

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
2	2000	EA	NAS1149D0563J		X4226	ANILLO INDUSTRIES	10630		


Jason Lewis
Vice President of Quality

02/14/14

ANILLO Industries, Inc.

2090 NORTH GLASSELL STREET, ORANGE, CA 92865-3391 USA
PLEASE REMIT TO
P.O. BOX 5586 ORANGE, CA 92863-5586 USA
(714)637-7000 (562)924-6632 FAX(714) 637-3022



550548

Packing List & Certification

WE ACCEPT
VISA/MASTER/DISCOVER/AMEX

SOLD TO B/E AEROSPACE, INC. ATTN: ACCOUNTS PAYABLE DEPT. P.O. BOX 025263 MIAMI, FL 33102-5263	1165	SHIP TO B/E AEROSPACE, INC. CONSUMABLES MANAGEMENT 9835 NW 14TH ST MIAMI, FL 33172	E
--	-------------	---	----------

DATE ORDER REC'D 07/10/2013	ORDER NUMBER 1A1738	INVOICE DATE	SHIPPED VIA FEDXG 033101490	TERMS 1% 10 DAYS, NET 30
ITEM	ORDERED	SHIPPED	DESCRIPTION	NET WEIGHT

1 1,000,000 **60,365** **NAS1149D0563J**
REV 5 /LOT#X4226 MIN/MAX /QCR:1,4,6,8,15,16,AN960JD516
ECCN: 9A991 Schedule B#: 7616.10.8000 COO: US NLR

We certify that: 1. item number 1 above is manufactured in accordance with the material and processing specifications of this order.
2. We certify that the material on this order conforms in all respects to the current applicable government and/or manufacturer's specification. Test reports are on file and are available for examination on all Anillo manufactured parts. All claims for errors or shortages must be made within 10 days after receipt of goods.
No good to be returned without written authorization. All claims for defective material must filed within 30 days of shipment to receive consideration. We do not assume financial responsibility or liability from the use of products sold, other than the replacement value of the products sold, if claimed within the specified time limit above.

<< R.M.A.# REQUIRED FOR RETURNS >>

Certification

B/E Aerospace, Inc. - Consumables Management	
Self Release	
Signature and Stamp:	
Date: 08-28-13	

BY Ben Omidwar
Ben Omidwar, Quality Assurance Manager

FI 4.03.05

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4878 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material meet the composition limits and have the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Rob Woodall
Rob Woodall
Director of Manufacturing Davenport Works

Terrance Thom
Terrance Thom
Quality Assurance Manager

1425430 Ship Date	0 B.L. No.	Invoice No.	Alcoa No.	Item
2012-08-31	7311220	00000	1000355618-1	DP-55818-1
P.O. No./Govt Contract No.		Customer	Alcoa Item	
TV0105-001: 01		BOEING-TMX	G041003529R07	

TX9085

Page 1 of 2

Ship To: THE BOEING COMPANY
TMX AEROSPACE DIVISION
12821 CARMENITA ROAD
UNIT F
SANTA FE SPRINGS 90670 CA

Item Description
0.063 IN TK (+.0030 -.0030) X 48.0 IN W (+.046875 -.046875) CAT X ~~005600~~
7 (N) A/T ALCLAD 2024-T3, COILED SHEET MILL FINISH 895699-7. AMS-QQ-A-250/5 REV A IS 2010 A89103 D6-82479 REV F
((MARKED)) LIGHTLY COILED COIL SIZES: 1D
20 IN OD MAX 48 IN MAX GROSS SKID WGT: 7500 LB QUAN TOL +/-
30 % CQR 0108580 REV 12 CUST REQ 12-01-
12 *** W/E 12-08-25 ***

833839

HM 12-6-12

Num	Package Ticket	Lot	Weight	Quantity	UOM	Inspector Clock Numbers
1	442336	548642	3409	1	PC	27767 46959

Notes for CQR: 0108580.12

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/5 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2.
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AM S-QQ-A-250/5.

CQR: 0108580.12 -Specification Limits

Temp	Dir	UTS	TYS	EL4D
		KSI	KSI	PCT
T3	Long Transv.	Max		
		Min	61.0	40.0 15

Chemical Composition	SI	FE	CU	MN	MG	CR	ZN	TI	Other	Other	
									Each	Total	
Alloy 2024	Max	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15	0.05	0.15
	Min			3.8	0.30	1.2					
										REMAIN	

Chemical Composition	CU	MN	MG	V	ZN	TI	FE+SI	Other	
								Each	
LINER	Max	0.10	0.05	0.05	0.05	0.10	0.03	0.70	0.03
Alloy 1230	Min								
									99.30

CERTIFIED COPY OF ORIGINAL

We hereby certify that this document is a correct copy of reports now on file at Anillo Industries, Inc.

Date: 08-28-13
Part Number: NA-114900563J
Lot Number: X4226

Signature: *[Signature]*
Title: Quality Records Clerk

AN960JDS16

Highway
17
In-Process

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

For:

Rob Woodall
Rob Woodall
Director of Manufacturing Davenport Works

Terence Thom
Terence Thom
Quality Assurance Manager

1425430 0
Ship Date B.L. No. Invoice No. Alcoa No. Item
2012-08-31 7311220 00000 1000355018-1 DP-55818-1
P.O. No./Govt Contract No. Customer Alcoa Item
TV8105 Ln#: 01 BOEING-TMX G041003529R07

Page 2 of 2

COR: 0108580.12 -Specification Limits (cont.)

Lot: 548642 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	No->	UTS	TYS	EL4D
T3	Long Transv.	Test	KSI	KSI	PCT
		2	63.2	44.4	19.9
			63.2	44.5	17.6

Cast Number	Chemical	OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9015064	Actuals		0.04	0.17	4.7	0.63	1.5	0.00	0.06	0.03

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States

CERTIFIED COPY OF ORIGINAL

We hereby certify that this document is a correct copy of reports now on file at Anillo Industries, Inc.

Date: 07-28-13
Part Number: MA\$1149D0563J
Lot Number: Y4226

Signature: *[Signature]*
Title: Quality Records Clerk

AN960JDS16



Certification

ANILLO INDUSTRIES, INC.
2090 North Glassell st.
Orange, CA. 92865-3391
(714) 637-9110

This is to certify that the below listed parts were processed per the applicable specification listed below.

Test reports and procedures governing this process are on file and subject to examination.

CHEMICAL FILM MIL-DTL-5541

Type	Class	Thickness	Revision
I	3		F

Job Number: **X4226**

P/N REV.: **5**

Quantity: **504,400**

Visual: **Y**

Part Number: **NAS1149 D 0563 J**

Adhesion: **N**

Description: **AN960JDS16**

Date: **03/20/13**

Authorized by: **MARIBEL CUEVAS**

Stamp:



FORM # 4.09.117 REV A 05/19/09



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 9835 NW 14TH ST, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P022981

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	100	EA	AN6-13A		57949	MAC FASTENERS	0RPT4		


Jason Lewis
Vice President of Quality

02/14/14

Inv # 02/14/14

MACFASTENERS, INC.

1110 Enterprise Street
Ottawa, KS 66067
Phone: 785-242-8812
Fax: 785-242-4616

Packing List**Bill** UFC Aerospace Corp.**To:** PO BOX 2061

HOLTSVILLE, NY 11742-2061

United States

Ship UFC Aerospace Corp.**To:** 100 CORPORATE DRIVE

HOLTSVILLE, NY 11742

United States

Shipment No: 51842**Shipment Date:** 12/20/11**Ship Via:** Yellow Freightways, Inc.**Order Number:** 42773**Order Date:** 08/18/11**Customer Code:** UFC**Phone:** (561) 637-1737**PO Number:** PUR03AB8**Terms:** Net 30 Days

LOT #57949

<u>Item</u>	<u>Quantity</u>					<u>Unit</u>	<u>Description</u>	<u>Revision</u>	<u>Job Number</u>
	<u>Open</u>	<u>Shipped</u>	<u>Back Ord</u>	<u>Canceled</u>					
1	10,000	12,000	0			M	AN6-13A Bolt, machine— Aircraft	2	57949

JAN 04 2012



MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: UFC AEROSPACE CORP

PO: PUR03AB8

PART NUMBER: AN6-13A

REV: 2

LOT NUMBER: 57949

MANUFACTURED QUANTITY: 12,000

MILL HEAT NUMBER: 8097919

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225-7014, ALTERNATE 1 COMPLIANT

MERCURY FREE CERTIFICATION

MacFasteners Inc. certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in accordance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.

DATE: 12/18/11


QUALITY ASSURANCE REPRESENTATIVE



MacFasteners, Inc. is an AS9100/ISO9001 Registered Company - PJR# C2009-00297